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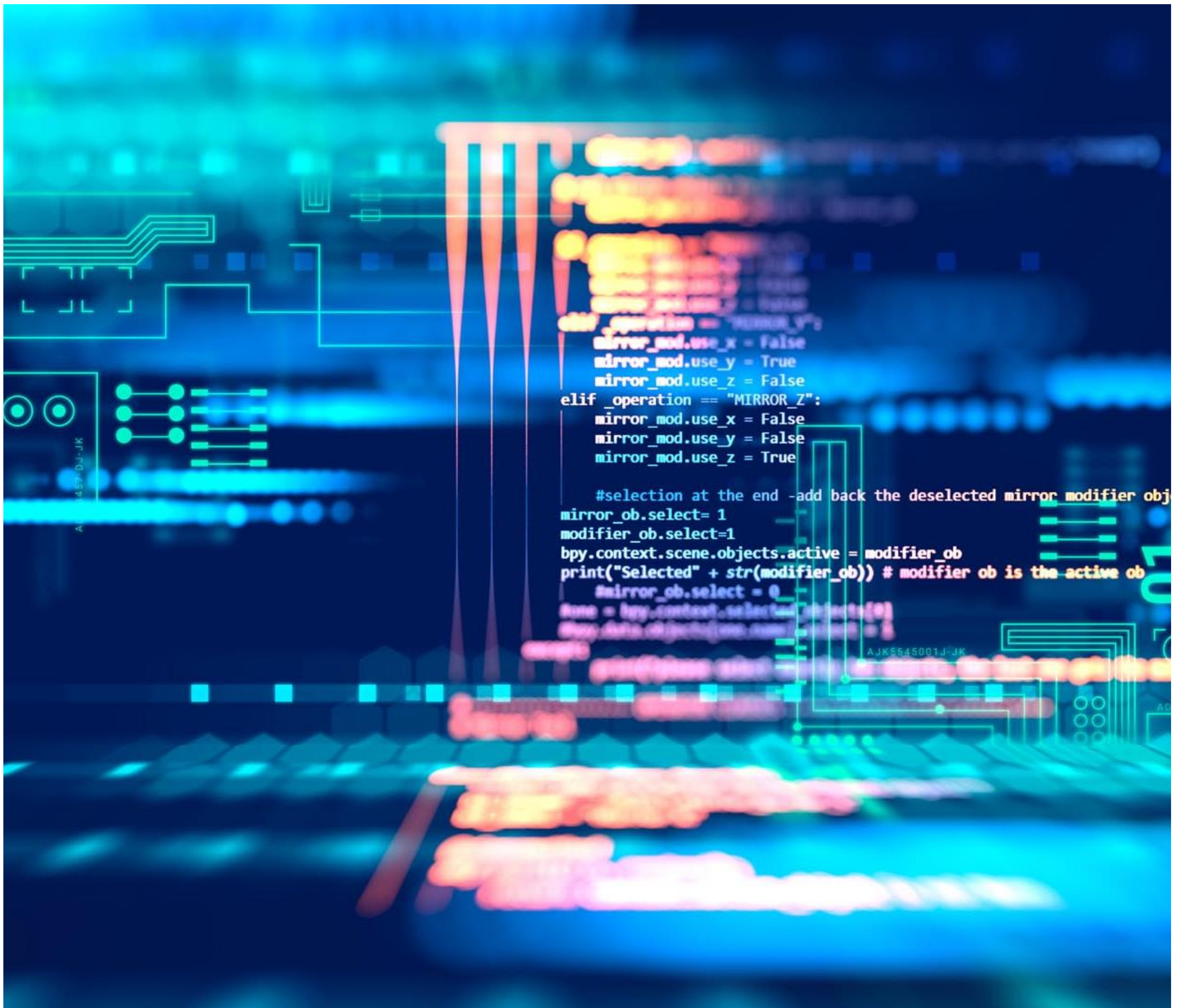
Briefing Paper

Benchmark Reform - the Impact of IBOR Transition

Norton Rose Fulbright LLP – December 07, 2020 - Private and confidential



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Why is it likely that LIBOR will be discontinued?

On 27 July 2017, Andrew Bailey, the Chief Executive of the UK Financial Conduct Authority (the **FCA**) announced that the FCA would no longer compel or persuade banks to make submissions to LIBOR as from the end of 2021. This announcement came as a result of longstanding concerns regarding the robustness of LIBOR as a benchmark[1].

LIBOR was originally a survey-based benchmark, compiled by panels of banks answering the question "at what rate could you borrow funds were you to do so by asking for and then accepting interbank offers in a reasonable market size just prior to 11am?" However, in the wake of the manipulation scandal, regulators found that there were very few transactions taking place to support some of the currencies and tenors for which LIBOR was published[2]. As such, LIBOR submissions were largely based upon expert judgement rather than transaction data. This led to concerns that LIBOR was unrepresentative and vulnerable to potential manipulation which in turn culminated in a number of criminal actions brought in various jurisdictions around the world.

Problems with LIBOR focused the attention of global regulators on benchmark reform more generally. This resulted in the development of the IOSCO Principles for Financial Benchmarks which emphasized that financial benchmarks should be "anchored in an active market having observable, bona fide arms-length transactions"[3]. However given the lack of underlying transactions supporting LIBOR, banks have become increasingly reluctant to make submissions to the benchmark prompting regulators to take steps to persuade panel banks to contribute in order to support the continued publication of LIBOR. This situation is increasingly unsustainable.

In July 2014, the Financial Stability Board comprised of regulators from G20 countries recommended in its report "Reforming Major Interest Rate Benchmarks"[4] that financial institutions should transition away from LIBOR altogether to so-called "risk-free rates". Risk-free rates are benchmarks generally based on overnight deposit rates. They are considered to be more robust as they are based upon a larger volume of observable transactions. A risk-free rate has been identified for each currency for which LIBOR is currently published.

The implementation of Regulation (EU) 2016/1011 of 8 June 2016 on indices used in benchmarks in financial instruments and financial contracts to measure the performance of investment funds (the Benchmark Regulation) in EU member states has provided further impetus for reform. Supervised entities which use benchmarks must develop robust written plans setting out the actions they will take in the event that a benchmark materially changes or ceases to be provided and that this needs to be reflected in their contractual relationships with their clients. The Benchmark Regulation states that such plans may be requested by a national competent authority and that a supervised entity is obliged to provide this upon request. In addition, if an administrator of a benchmark determines that the input data it uses to calculate the benchmark no longer represents the market or economic reality that the benchmark was designed to measure, then the administrator either needs to change the methodology for calculating the relevant benchmark or cease to provide the relevant

[1] https://www.fca.org.uk/news/speeches/the-future-of-libor
[2] The Wheatley Review of LIBOR (final report) September 2012
[3] Principles for Financial Benchmarks (final report) The Board of the International Organization of Securities Commissions (July 2013)
[4] Reforming Major Interest Rate Benchmarks, Financial Stability Board 22 July 2014

benchmark. The Benchmark Regulation explains how this could lead to a national competent authority declaring the relevant benchmark as unrepresentative.

ICE Benchmark Administration Limited (**IBA**) which is the administrator of LIBOR has taken a number of steps to reform LIBOR. As from April 2019, LIBOR has been calculated using a waterfall methodology pursuant to which panel banks must base their submissions on transaction data to the extent available before reverting to expert judgment. On 18 November 2020, IBA announced it will begin consultations with the intention to cease publication of all GBP, EUR, CHF and JPY LIBOR settings immediately following its publication of LIBOR on 31 December 2021. The IBA have long noted that banks should not rely on the continuation of LIBOR as an option when making contingency plans[5]. Indeed, the FCA reiterated in 2019 the warning that even if LIBOR were to continue post-2021, it will have changed as a rate and as such there would be a "high probability that it would no longer pass regulatory tests of representativeness"[6]. IBA announced on 30 November 2020 that it will begin consultations in early December 2020 to facilitate its plans to cease publication of one-week and two-month USD LIBOR settings on the 31 December 2021 deadline, with the remaining USD LIBOR settings ceasing at the end of June 2023 to allow for legacy contracts to mature.

The 2019/20 Financial Services Bill unveiled by the UK government in October 2020 provides the FCA with the power to prohibit use of non-representative benchmark rates and facilitate their winding-down, and thus the FCA and IBA's warnings to market participants should inspire a sense of urgency to prioritise actively transitioning from LIBOR well ahead of the end-2021 cessation[7].

The FCA and the Bank of England set a revised target of end Q1 2021 to cease issuance of GBP LIBOR-based cash products with tenors past the end of 2021. It has also announced that lenders should be in a position to offer non LIBOR linked products to their customers by the end of Q3 2020 and that after the end of Q3 2020 lenders should include clear contractual arrangements in all new and re-financed LIBOR referencing products to facilitate conversion ahead of 2021. These contractual arrangements can either constitute a process for negotiating transition to SONIA or include pre-agreed conversion provisions[8].

The Financial Stability Board (the **FSB**) published its own 'Global Transition Roadmap' on October 16 2020 that echoes this timeline, emphasising that firms should already have identified and assessed all existing LIBOR exposures, and have plans in place to transition all existing contracts to use alternative reference rates. The FSB has set the end of 2021 as the deadline for all new business to be conducted in alternative rates or be capable of switching at limited notice.

The Alternative Reference Rates Committee of the Federal Reserve Bank of New York's target of 30 September 2020 for market participants to include "hard-wired" USD LIBOR fallback wording in new business loans has passed. The committee has previously said that as from 30 June 2021, no new business loans should be originated which reference LIBOR and have a term extending beyond the end of 2021. However, following the IBA announcement on the extension for USD LIBOR settings to 30 June 2023, this deadline has been extended to 31 December 2021. This timetable has been reinforced by the Federal Reserve Board, Federal Deposit Insurance Corporation and Office of the Comptroller of the Currency. These agencies issued supervisory guidance on 30 November 2020 encouraging banks to stop entering into new contracts that use USD LIBOR as

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[5] https://www.theice.com/iba/libor
[6] https://www.fca.org.uk/news/speeches/andrew-bailey-speech-annual-public-meeting-2019
[7]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928238/LIBOR_Policy_Statement.pdf
[8] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfrwg-further-statement-on-the-impact-of-coronavirus-on-timeline-for-firms-libor-transition-plans.pdf?la=en&hash=68299592AF83B04E3BF60BA3209AA9A73522E9D4

a reference rate as soon as practicable and in any event by 31 December 2021, in order to facilitate an orderly transition.

This has been supported by announcements from the FCA who confirmed in a statement made on 30 November 2020 that they will coordinate with the US authorities, and relevant authorities in other jurisdictions, to consider whether and, if so, how most appropriately to limit new use of USD LIBOR.

Are EONIA and EURIBOR being replaced?

EURIBOR

The European Money Markets Institute (**EMMI**) has conducted reforms to ensure that EURIBOR meets the requirements of the Benchmark Regulation. EURIBOR, like LIBOR, has historically been determined based on quotes from participating banks but is now moving to a hybrid determination based on, where possible, actual transactions provided by the panel of contributing banks. The hybrid methodology has been granted authorisation by the Belgian Financial Services and Markets Authority (**FSMA**) under the Benchmark Regulation and EURIBOR can therefore be used after 1 January 2020 and beyond for both existing and new contracts.

Contracts referencing EURIBOR need to refer to new or improved fallback provisions to reduce potential uncertainty in the event of a disruption to EURIBOR. The working group on euro risk-free rates published a report in November 2019[9] setting out its high level recommendations for fallback provisions in contracts for cash products and derivatives transactions referencing EURIBOR. In summary, the fallback provisions should cover both permanent and temporary cessation of EURIBOR; comply with the requirements of the Benchmark Regulation; and contemplate adjustments to address differences between the value of EURIBOR and the value of the fallback rate. A form of generic wording is included.

The European Money Markets Institute published the results of two public consultations on 23 November 2020 that reflected market feedback on EURIBOR fallback trigger events and €STR-based EURIBOR fallback rates. The consultations and the feedback they relay show the ongoing intention of EMMI to mitigate the risks of temporary or permanent cessations of the benchmark rates.

In July 2020, the European Central Bank issued a consultation on publishing compounded average €STR rates and an index.The European Commission have also published text to amend the Benchmark Regulations to ensure contractual continuity if a major benchmark used in the EU, such as LIBOR, is discontinued or becomes unrepresentative of its underlying market. In these circumstances the European Commission would be empowered to identify a "statutory replacement rate". This would automatically replace the outgoing benchmark by operation of law in contracts without "suitable fallback provisions" to which supervised entities in the EU are party. However, this would only apply to contracts that are in scope of the Benchmark Regulations, so does not directly apply to commercial loan agreements (since the Benchmark Regulations only applies to derivatives, capital markets products and consumer credit and regulated mortgages).

EONIA

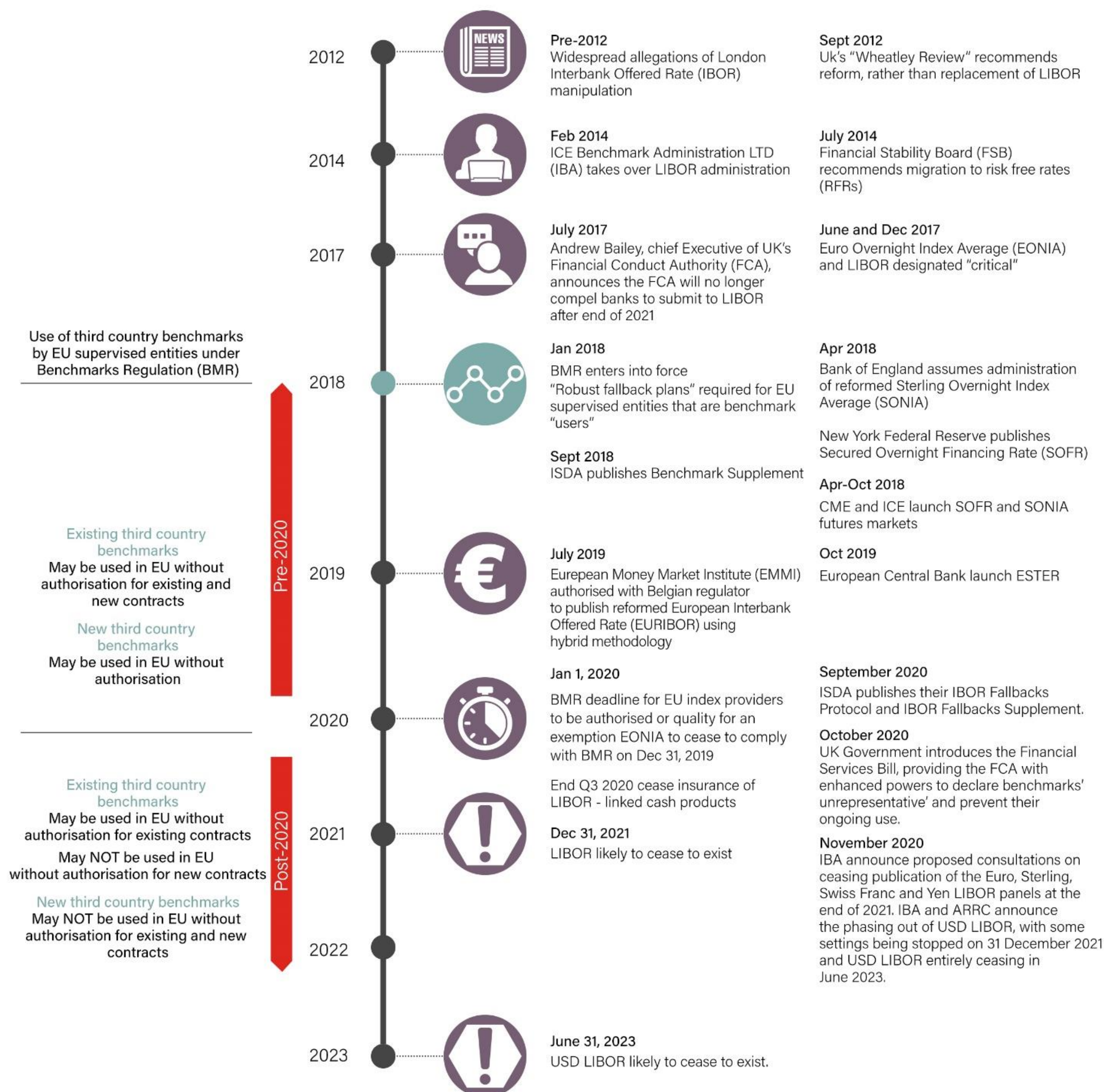
EONIA (European Overnight Index Average) is a weighted average of the interest rates on unsecured overnight lending transactions denominated in Euros in the interbank market, as reported by a panel of contributing banks. EONIA will be replaced at the end of December 2021 by the Euro short-term rate (**ESTR**), which is calculated on the wholesale Euro unsecured overnight borrowing costs of Euro area banks. ESTR is based on

[9] https://www.ecb.europa.eu/pub/pdf/other/ecb.wgeurofr_highlevelrecommendatioseuriborfallbacks~abc6ca6268.en.pdf

data provided by a larger number of contributing banks, compared to EONIA, with the data based on a greater volume of transactions, so it is considered to be more robust than EONIA.

The European Central Bank has been publishing ESTR since October 2019. At the same time, EMMI, which is the administrator of EONIA, modified the methodology so that EONIA is now calculated as ESTR plus a fixed spread of 8.5 basis points, reflecting the historical difference between the underlying interests of the two benchmarks.

Benchmarks reform – timeline



What are risk-free rates?

Currency	Risk-free rate	Secured?	Publication time
Sterling (£)	Sterling Over Night Index Average (SONIA)	No	09:00 GMT, T+1
Euro (€)	Euro Short-Term Rate (ESTER)	No	09:00 CET, T+1
US Dollar ($)	Secured Overnight Funding Rate (SOFR)	Yes	08:00 ET, T+1
Swiss Franc (CHF)	Swiss Average Rate Overnight (SARON)	Yes	12:00, 16:00 and 18:00 CET, same day
Japanese Yen (¥)	Tokyo Overnight Average Rate (TONAR)	No	10:00 JST, T+1

Risk-free rates are identified for each currency, rather than there being one rate applying to all relevant currencies (as for LIBOR). The risk-free rates generally have the following features:

- They are all backwards looking (other than SARON); that is to say that they are published the day after the period to which they relate. For example SONIA is published at 9.00 am. GMT by reference to unsecured interbank deposits greater than or equal to £25,000,000 placed between 00:00 and 18:00 on the previous day. SARON is published at 6pm on the same day on which it is calculated.
- They do not build in the same kind of premium for term liquidity or bank credit risk as LIBOR. As a forward looking rate, LIBOR contains an element of pricing based on the notion that one bank is taking credit risk on the other for the relevant tenor. As a consequence, LIBOR tends to increase in periods of market stress. This may not be the case with respect to a risk-free rate, unless some form of forward looking term risk-free rate is established (see section “The development of a term risk-free rate”).
- The rates are administered locally and therefore are published at different times.

Focus on risk-free rates

What is SONIA?

SONIA is the Sterling Overnight Index Average benchmark. It is the designated risk-free rate for Sterling.

Who administers SONIA?

SONIA is administered by the Bank of England.

For what currencies and tenors is SONIA published?

SONIA is published for Sterling only. It is an overnight rate and as such is not published for any forward looking tenor.

When is SONIA published?

SONIA is published each day at 9am London time with respect to transactions which occurred on the previous day.

What data is used to compile the benchmark?

SONIA is a measure of the rate at which interest is paid on sterling short-term wholesale funds. It is comprised from interest rates paid on eligible sterling deposit transactions. Eligible sterling deposit transactions are:

- Reported to the Bank's Sterling Money Market daily data collection in accordance with the effective version of the Reporting Instructions for Form SMMD.
- Unsecured and of one business days' maturity.
- Executed between 00.00 – 18.00 UK time and settled that same day.
- Greater than or equivalent to £25,000,000 in value.

The rate is calculated as a volume weighted trimmed mean rate based upon the central 50 per cent of the volume-weighted distribution of the rates.

What are the advantages of using the benchmark?

SONIA is based on real transaction data and is administered by the Bank of England. It is therefore a robust benchmark which is less at risk of being open to manipulation.

What are the disadvantages of using the benchmark?

SONIA is backward looking and is not published for a forward looking tenor. This creates challenges for cash products in that it makes it more difficult for borrowers to know at the outset of the interest period what will be payable on the interest payment date occurring at the end of the relevant interest period. As such, the Bank of England Working Group on Sterling Risk-Free Reference Rates (**BofE Working Group**) has suggested that a compound rate could be used and calculated using a lock out or lag method which may facilitate the borrower to calculate the rate of interest prior to the interest payment date.[10] This suggestion has been reflected in the Loan Market Association exposure drafts of Compounded Risk-Free Rate Facility Agreements for Sterling and USD by reference to SONIA and SOFR published on 23 September 2019, referred to in section "The challenges of transition to risk-free rates". In addition, the BofE Working Group has also consulted on the development of a Term SONIA rate however any such term rate would only be suitable for use in a limited range of transactions.[11] (see section "The development of a term risk-free rate").

Transition to SONIA may also create issues for bank administrative functions which are currently set up to administer LIBOR based loans and which may therefore have to be re-organised.

In addition, as SONIA is essentially an overnight rate it lacks the in-built element of term credit risk which is contained in a LIBOR rate. There is likely to be a difference in value between SONIA calculated on a compound basis and the equivalent LIBOR term rate. The BofE Working Group has consulted on the development of a Term SONIA rate and published a summary of their Beta Term SONIA Rates on October 16 2020.[12] The report indicates that the 'Beta' tag is expected to be removed from these Term SONIA rates towards the end of 2020.

What happens if SONIA is not available?

The Bank of England has a robust contingency policy in the unlikely event that insufficient data was received to enable it to calculate SONIA. In such circumstances SONIA would be determined by using the Bank of England base rate (**Bank Rate**) plus the mean of the spread of SONIA to the Bank Rate over the previous five publication days (excluding the days with the highest and lowest spread to Bank Rate). The relevant level of Bank Rate would be that at the close of the SONIA transaction window.

The above fallback is intended for short term contingencies only. If there was a prolonged event then the Bank would need to take measures at the time in accordance with its procedures for reviewing the methodology for calculating SONIA. The Loan Market Association exposure drafts of Risk-Free Rate facility agreements for SONIA and SOFR include fallbacks to relevant central bank rates where a compounded average risk-free rate calculation cannot be provided by the facility agent or any other lender and in the event of unavailability of a central bank rate, the fall-back would be to lenders' actual cost of funds drafted in a similar form to existing LMA facility agreements based on LIBOR.

[10] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/discussion-paper-conventions-for-referencing-sonia-in-new-contracts
[11] https://www.bankofengland.co.uk/paper/2018/consultation-paper-on-term-sonia-reference-rates
[12] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfrwg-term-sonia-reference-rate-summary.pdf?la=en&hash=B7360E607A9B7E83663361E7970B9D90B2CC56D0

What is SOFR?

SOFR is the Secured Overnight Financing Rate. It is designated as the risk-free rate for US Dollars.

Who administers SOFR?

SOFR is administered by the Federal Reserve Bank of New York (the **New York Fed**).

For what currencies and tenors is SOFR published?

SOFR is published for US Dollars. It is an overnight rate and as such is not published for any forward looking tenor. It is a relatively new benchmark and was first published in April 2018.

When is SOFR published?

SOFR is published at 8 am Eastern Time with respect to transactions occurring on the previous day.

What data is used to compile the benchmark?

SOFR is a broad measure of the cost of borrowing cash overnight collateralized with US Treasury securities. It is compiled using data from numerous sources including (i) tri-party repo transactions (ii) General Collateral Finance repo transactions and (iii) bilateral Treasury repo transactions cleared through Fixed Income Clearing Corporation.

What are the advantages of using the benchmark?

SOFR is based on real transaction data and is administered by the New York Fed. It is therefore a robust benchmark which is less at risk of being open to manipulation.

What are the disadvantages of using the benchmark?

SOFR is a new benchmark and is relatively untested in periods of market instability. It has been reported that it has been volatile at the end of a quarter however the use of a compounded or averaged rate appears to have the effect of balancing out these fluctuations.

SOFR is backward looking and is not published for a forward looking tenor. This creates challenges for cash products in that it makes it more difficult for borrowers to know at the outset of the interest period what will be payable on the following interest payment date. As such the Alternative Reference Rates Committee of the Federal Reserve Bank of New York (**ARRC**) has suggested that a compounded rate could be used and calculated using a lock out or lag method which may facilitate an ability for the borrower to calculate the rate of interest prior to the interest payment date as discussed further in Adjusting a risk-free rate below[13]. This suggestion has been reflected in the Loan Market Association exposure drafts of Compounded Risk-Free Rate Facility Agreements for Sterling and USD by reference to SONIA and SOFR published on 23 September 2019, referred to in section "The challenges of transition to risk-free rates". In addition pursuant to its paced transition plan ARRC is also contemplating the development of a term based SOFR rate[14] (see section "The development of a term risk-free rate").

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[13] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Syndicated_Loan_Fallback_Language.pdf and https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Users_Guide_to_SOFR.pdf
[14] https://www.newyorkfed.org/arrc/sofr-transition#pacedtransition

Transition to SOFR also creates issues for bank administrative functions which are currently set up to administer LIBOR based loans and which may therefore have to be re-organised.

In addition, as SOFR is essentially an overnight rate it lacks the in-built element of bank and term credit risk which is contained in a LIBOR rate. There is likely to be a difference in value between SOFR calculated on a compounded or simple average basis and the equivalent LIBOR term rate.

The development of a term risk-free rate

Given the challenges of using a backward-looking risk-free rate for certain financial products such as cash products, many market participants have been hoping for the development of a forward-looking term risk-free rate such as a term SONIA (**Term SONIA**) or term SOFR (**Term SOFR**) which could, like LIBOR, enable the rate to be established at the start of the interest period to which it relates to facilitate budgeting.

Term SOFR?

The ARRC set out a paced transition action plan which it hopes will lead to the establishment of Term SOFR by 2021[15]. The establishment of Term SOFR is the final step of the AARC's 5-step plan, with the previous 4 steps having been completed – the most recent of which was on 16 October 2020 when clearing houses LCH and CMA transitioned to using SOFR for the purpose of calculating their Price Alignment Interest and Discounting Rate.

The ARRC anticipate that a term rate could be developed by using data from SOFR referencing overnight interest swaps (**OIS**) and futures. At present there is not sufficient liquidity within the SOFR OIS and futures market from which a forward looking benchmark could be derived however this is expected to change. The ARRC anticipate that the private sector may look to develop forward-looking benchmarks on this basis. They then expect to be able to evaluate such benchmarks and to recommend one such rate which fulfils their criteria.

However in the 2019 ARRC paper entitled "The User's Guide to SOFR"[16] the ARRC emphasized that market participants should not rely on the development of Term SOFR as a substitute for LIBOR. There is no certainty as to when such a benchmark would be developed (or if it will be developed at all). They also emphasized that in practice, there was unlikely to be any significant economic difference between a Term SOFR rate and a compounded average SOFR rate. It is anticipated that ARRC will publish use cases for Term SOFR and that these will focus primarily on the use of the rate as a substitute for LIBOR in legacy LIBOR based transactions which are transitioning to SOFR rather than as a benchmark for new financings.

On 10 September 2020, the ARRC released a Request for Proposals seeking a potential administrator to publish forward-looking SOFR term rates. This is in line with the ARRC's 2020 objectives, which aimed to establish a process to select a recommended administrator of forward-looking term SOFR rates, to be published in the first half 2021. It is anticipated that the expected 18 month extension to USD LIBOR settings will give the market sufficient time to develop and approve the use of a Term SOFR rate prior to the cessation of USD LIBOR settings.

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[15] https://www.newyorkfed.org/arrc/sofr-transition#pacedtransition
[16] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Users_Guide_to_SOFR.pdf

Term SONIA?

Similar plans for the development of a Term SONIA have been suggested by the BofE Working Group and have been subject to consultation amongst market participants[17]. There are 3 benchmark administrators who have developed Term SONIA rates (FTSE Russell, IBA and Refinitiv) in beta form with an expected release date by the end of 2020.

SONIA has been established as a benchmark since 1997 and there is a liquid SONIA OIS market. A SONIA exchange traded futures market is less developed but volumes are expected to increase. In terms of the development of Term SONIA, there are fewer concerns regarding the liquidity of the underlying short-dated SONIA OIS market as a potential data source for Term SONIA. Given that MIFID II trading obligations do not currently apply to OIS, there is no obligation to trade on regulated venues and therefore the BofE Working Group has concerns about the transparency of any data derived from the SONIA OIS market. They concluded that this issue could be addressed through greater trading of OIS on regulated electronic platforms.

However in its discussion paper entitled "Conventions for referencing SONIA in new contracts (March 2019)"[18] the BofE Working Group reiterated its previous guidance that LIBOR users should "progress their transition from LIBOR to the greatest extent possible, independently of any further progress on the development of a TSSR [Term SONIA Reference Rate]".

More recently, on 16 January 2020, the RFR Working Group published a paper entitled "The use cases of benchmark rates: compounded in arrears, term rate and further alternatives"[19]. The paper outlines why the use of Term SONIA must be limited while at the same time acknowledging that there are certain financial products where Term SONIA would be beneficial. The paper indicates that Term SONIA would be appropriate and is likely to be operationally achievable for approximately 90% of new loan deals by value. The exceptions would include:

- smaller corporate, wealth and retail clients, who need simplicity and/or payment certainty and don't have the understanding or resources to adapt to SONIA compounded in arrears;
- trade and working capital products such as supply chain finance and receivables facilities, which require a term rate or equivalent to calculate forward discounted cash flows to price the value of assets in the future;
- export finance and emerging markets loans, which require long notice periods for payment; and
- Islamic finance transactions, which can pay variable rates of return.

Term SONIA is now being published by for a period of observation with a view to Term SONIA being made available by the end of 2020 or during Q1 of 2021 . It should be noted that there are least 4 benchmark administrators who are publishing or are due to publish their own versions of Term SONIA and there are expected to be differences between them. It will take some time for the market to analyse the rates and it will be down to individual banks to determine which rate should be selected.

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[17] https://www.bankofengland.co.uk/paper/2018/consultation-paper-on-term-sonia-reference-rates
[18] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/discussion-paper-conventions-for-referencing-sonia-in-new-contracts
[19] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/use-cases-of-benchmark-rates-compounded-in-arrears-term-rate-and-further-alternatives.pdf?la=en&hash=22BA20A8728D9844E5A036C837874CA3E70FEAE1

Attitude of regulators

As noted above there are concerns that any term based rate would face some of the same challenges as LIBOR in terms of compliance with the IOSCO principles and the Benchmark Regulation. In particular, the market for OIS and futures referencing the relevant benchmark would need to develop to a sufficient size and be sufficiently transparent in order for regulators to have confidence that any such new term rate would itself be representative of the market or economic reality that it was designed to measure.

The ARRC and the BofE Working Group suggest that market participants should look at alternative calculation methodologies using risk-free rates such as compound or simple average rates for the use in cash products as an alternative to the adoption of a term risk-free rate.

Adjusting a risk-free rate for use in financial products

Both the ARRC and the BofE working group have recommended that market participants and particularly users of cash products such as the loan market should not base their LIBOR transition strategy on the future development of a term risk-free rate such as Term SONIA or Term SOFR and should instead look at alternative ways in which SOFR and SONIA could be referenced in contracts as a benchmark to produce a rate over a particular interest period. They have suggested the use of compounded or simple average rates as outlined below[20]. The BofE Working Group reported in their paper published on 16 January 2020[21] that the Term Rate Use Case Task Force has considered the use cases within cash and views the use of SONIA compounded in arrears as appropriate and likely to be operationally achievable for approximately 90% of new loan deals by value.

Compounded rate

The daily SONIA/SOFR rate could be compounded to produce a term based rate. A compounded SONIA rate would align more closely with established market practice for SONIA referencing derivatives including the OIS market. However given that SONIA/SOFR are backward looking rates, compounding would mean that the borrower may not know until the end of the relevant interest period how much interest would be due. This would create issues in terms of budgeting and also in terms of banks operational systems.

Simple average rate

Alternatively the daily SONIA/SOFR rate could be averaged to produce a term based rate. This has the advantage of being a more straightforward calculation than compounding. It has not been adopted as yet in other SONIA referencing products however it has been used in SOFR referencing floating rate notes (**FRNs**). It should be noted that ARRC in its recent publication "SOFR "In Arrears" Conventions for Syndicated Business Loans"[22] does recommend the use of SOFR calculated on a simple rather than compounded basis as this results in an easier calculation.

The BofE working group note that the compounded rate method and a simple averaging method would produce different results. With respect to SONIA the spread between the two methods has proved to be particularly pronounced during periods of volatile interest rate environments and over longer terms. Many industry

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[20] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Users_Guide_to_SOFR.pdf and https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/discussion-paper-conventions-for-referencing-sonia-in-new-contracts

[21] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/use-cases-of-benchmark-rates-compounded-in-arrears-term-rate-and-further-alternatives.pdf?la=en&hash=22BA20A8728D9844E5A036C837874CA3E70FEAE1

[22] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC_SOFR_Synd_Loan_Conventions.pdf

participants have favoured the compounded rate approach as being more reflective of the time value of money however questions remain as to precisely how that rate would be calculated and whether there would be differences in methodology between different currencies.

Both the ARRC and the BofE Working Group have indicated that they will be looking to develop rate calculation tools to determine compounded or averaged SOFR and SONIA to facilitate the use of these rates. Indeed the ARRC now publishes 30, 90 and 180 day SOFR Averages and in addition also produces a SOFR Index. The BofE Working Group has consulted with market participants regarding the publication of similar rate calculation tools with respect to SONIA.[23] It is now publishing a SONIA Index but has decided not to publish SONIA Averages due to lack of support for this option amongst market participants in a recent consultation.

Daily Simple – ARRC in its recent "hard wired approach" wording[24] also suggested that market participants may want to consider the use of a daily simple SOFR rate (rather than an average or average compounded rate) for use in business loans. One of the reasons for this is so that it would be possible to calculate the interest applying to the loan on a daily basis (e.g. for the purposes of determining the interest which is payable on a prepayment or to facilitate secondary debt trading).

Budgeting and the need for advance notice of the payment due?

A number of suggestions have also been made to deal with concerns that a borrower will need to know the amount of interest payable in advance of the relevant interest payment date. These are summarised below.

Payment delay

Although the compounded or averaged rate would be calculated at the end of the interest period, the interest payment would be due a few days after the end of the interest period (i.e. after the start of the next interest period). The ARRC notes that this method is generally used in the OIS market.

Lag or lookback method (with observation shift)

This involves using the compounded or averaged rate over a period (an "observation period") commencing say five business days prior to the start of the relevant interest period and ending an equal number of business days prior to the relevant interest payment date. The rate payable by the borrower on the interest payment date is the compounded rate calculated over the relevant observation period. In this way the borrower would know five days before the relevant interest payment date how much it would have to pay. Recent SONIA bonds have referenced this method and the Loan Market Association exposure drafts of Compounded Risk-Free Rate Facility Agreements for Sterling and USD by reference to SONIA and SOFR published in September 2020 follow this model, using a five banking day lookback methodology. An "observation shift" means that in determining the rate, the weighting given to days in the observation period is used rather than to days in the corresponding interest period.

Lock out or suspension method

This involves repeating one of the daily rates for the last few days of the relevant interest period. This method has been used in most SOFR FRNs. There is obviously a risk that interest rate movements at the end of the interest period would not be captured within this calculation.

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[23] https://www.bankofengland.co.uk/-/media/boe/files/paper/2020/supporting-rfr-transition-by-providing-compounded-sonia.pdf?la=en&hash=2ED72FBB529C17999D3F948A55BD7C6D5F839E62
[24] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Language-June-30-2020.pdf

In advance method

This involves using the compounded or average rate from a previous period (either by reference to the previous interest reset period or a shorter recent interest period) as the rate for the forthcoming interest period.

Hybrid methods

The ARRC has also suggested methods whereby the interest rate would be calculated at the outset of the interest period using an in advance method however the amount of that payment when made by the borrower would be applied to interest calculated over the interest period in arrears (either by means of a compounded or simple average rate). As such, if rates had gone up by the end of the interest period then the payment by the borrower would be insufficient to discharge the full amount of interest calculated in arrears and the outstanding balance would either be added to principal or rolled into the next interest period. If however rates had decreased then the payment from the borrower would be applied to discharge the interest calculated in arrears with any excess being applied towards discharge of principal.

Avoiding value transfer

It is generally accepted that risk-free rates will be lower than LIBOR would have been for the equivalent period as risk-free rates do not incorporate a premium for term and bank credit risk. This difference creates issues for transition from LIBOR to risk-free rates as it could result in one party gaining and another losing from the change in benchmark. This is what is meant by value transfer.

Industry groups have consulted upon methods by which a spread value adjustment could be determined to preserve equivalent economics for the transaction upon a transition to risk free rates. So far the approach favoured by industry bodies such as ISDA and supported by recent consultations conducted by the BofE Working Group and the ARRC is to adopt the "historical mean/median approach". This would involve determining the spread value adjustment based on the mean or median spot spread between LIBOR or the other relevant IBOR) and the adjusted risk-free rate (i.e. the risk-free rate as calculated for the relevant tenor on a compounded basis) calculated over a long term, static lookback period (such as five years).[25]

Earlier the Loan Market Association (**LMA**) had issued guidance[26] noting that the historical mean/median approach would result in the calculation of a single value at a point in time based on an historical average. The LMA cautioned that this may not represent present value on a forward looking basis where the transition to a risk-free rate is contemplated ahead of LIBOR cessation or for ongoing active transactions. They observed that in the ABP Ports transaction (which was a transition from LIBOR to a SONIA linked floating rate note)[27] the forward market was used to determine the credit adjustment spread. This was possible due to the active SONIA derivatives market. However it may not be a suitable approach for other risk-free rates where the derivatives market is less well established.

Nonetheless as noted above, there has since been a general move towards the adoption of the "historical mean/median approach" as a means of determining a spread value adjustment upon transition whether that transition occurs before or upon the cessation of LIBOR. ARRC's "hard wired approach" wording[28] includes a spread value adjustment calculated in accordance with the ISDA definitions as part of its waterfall of options on transition to a risk free rate.

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[25] See for example: https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC_Spread_Adjustment_Methodology.pdf

[26] LMA Revised Replacement of Screen Rate Clause and considerations in respect of credit adjustment spreads 7 August 2019

[27] https://www.abports.co.uk/investor-relations/offering-related-documents/

[28] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Language-June-30-2020.pdf

The challenges of transition to risk-free rates

Different products have different challenges

Derivatives

Transitioning away from LIBOR may present less of a challenge for the majority of interest rate derivatives contracts as they do not need term rates and hedge the general level of interest rates rather than term bank credit risk. However a distinction should be drawn between this type of derivative and derivatives which are used to hedge cash products such as loans where the potential for divergent approaches to transition between the loan market and derivatives market could create basis risk if not properly coordinated.

One of the key challenges for the derivatives market has been to identify the appropriate fallback to include in documentation in case of LIBOR cessation and to identify a mechanism for dealing with any consequent value adjustment. With respect to LIBOR cessation, ISDA has consulted on both of these issues for certain currencies for which LIBOR is currently published (including GDP and more recently USD) and has so far identified the use of a compounded setting in arrears rate as a fallback with value adjustment on the basis of a historical mean/median approach.

Following the completion of various ISDA consultations on the adoption of pre-cessation triggers to fallbacks in 2019[29], ISDA published the IBOR Fallbacks Protocol and IBOR Fallbacks Supplement on 23 October 2020. The Supplement amends ISDA's standard definitions for interest rate derivatives to incorporate fallback rates for each currency, whilst the Protocol allows for parties to incorporate these revisions into their legacy derivatives trade providing all counterparties adhere to the protocol.[30] Therefore the non-representative pre-cessation trigger will apply to all new transactions incorporating the 2006 ISDA Definitions and market participants will be able to apply the updated ISDA Definitions to legacy transactions. [31] There will be a need to coordinate triggers and fallbacks with those contained in documentation which is the subject of a hedging arrangement. The FCA, the BoE Working Group and the Federal Reserve have all joined in welcoming ISDA's publications and have encouraged all market participants to adhere to the new Protocol, encouraging market participants to "accelerate efforts to transition from LIBOR in the time available".[32]

Cash products

The transition away from LIBOR and other IBORs presents the greatest challenges for so called cash products such as loans and securitisations for the following reasons:

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[29] https://www.isda.org/2019/10/21/isda-publishes-report-summarizing-results-of-benchmark-fallbacks-consultation-on-pre-cessation-issues/
[30] https://www.isda.org/2020/10/23/isda-launches-ibor-fallbacks-supplement-and-protocol/
[31] https://www.isda.org/a/cuQTE/2020.05.14-Pre-cessation-Re-Consultation-Report-FINAL.pdf
[32] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/statement-welcoming-isda-announcement.pdf?la=en&hash=1D9DDAB066CC9B7BD959CA0462106E3F07F9FDF9

Budgeting

As LIBOR is a forward looking rate set in advance of the commencement of the interest period, borrowers are able to calculate what will be owed in advance of the interest payment date and then budget accordingly. As risk-free rates are backward looking, this could make budgeting more difficult.

Loan administration

The loan administration function of a bank is structured around the current process for determining LIBOR. As such, change to an alternative benchmark will impact upon the banks' systems and organisation. For example, loan administration teams will need to deal with the different times at which the relevant risk-free rates are published for different currencies and how to calculate the risk-free rates for term based rates.

Loan documentation

Transitioning to a risk-free rate will involve significant changes to existing loan documentation which references LIBOR or the relevant IBOR. For legacy transactions this will require negotiation with the borrower as to the nature and impact of those amendments.

For new risk-free rate transactions, the Loan Market Association published exposure drafts in September 2019 and September 2020 of Compounded Risk-Free Rate Facility Agreements for Sterling and USD by reference to SONIA and SOFR, being the chosen replacement near risk-free rates for LIBOR in the Sterling and USD markets respectively. The LMA published commentary with the drafts inviting comments from market participants on the various structuring issues which need to be considered if adapting them for use in live transactions. The key considerations for the market are:

- Pricing:

  LIBOR provides an indication of the average rates at which submitting banks could obtain wholesale unsecured funding for future set periods which include a credit premium reflecting term bank credit risk and a term liquidity premium reflecting risks inherent in longer dated funding which take into account the economic climate expected for those periods. Risk-free rates being based only on historical interest rates paid on the previous day do not take account of future economic risk and in most cases therefore; risk-free rates will typically show a lower rate than published LIBOR rates. A spread value adjustment or payment will need to be built into the interest rate to achieve the same economic effect. This will be more challenging for existing transactions and will involve negotiation with the borrower.

- Calculation issues:

  - Compounding average of risk-free rates: risk-free rates are published each day at an overnight rate and need to be averaged to be applied to an interest period. The LMA exposure drafts use a compounded average to calculate a single percentage rate per annum being the cumulative effect of the application of a series of individual daily readings of the particular risk-free rate to a notional sum over a given interest period consistent with Floating Rate Note Issuances referencing SONIA, the use of compounded averages of SOFR in recent Floating Rate Note Issuances, recommendations of the Floating Rate Notes Working Group of the ARRC, and market feed-back received by the LMA in the context of syndicated loans.
  - Advance notice of interest payments for borrowers: in order to ensure borrowers receive adequate notice of the interest payable, a lag with observation shift structure is used in the LMA risk-free rate exposure drafts. Instead of using the compounded average risk-free rate for the exact interest period, instead it is calculated over an “Observation Period” which begins a specified number of days before the first day of the interest period and ends the same number of days before the last day of that interest period. Again,

this is consistent with recent floating rate note issuances referencing SONIA and SOFR. This may be more difficult to calculate for shorter interest periods.

- Multi-currency loans: LIBOR is published for Euro, Japanese Yen, Sterling, Swiss Francs and USD. Risk-free rates are published for individual currencies.
- Fall-back provisions: where a compounded average risk-free rate calculation cannot be provided by the facility agent or any other lender, the fall-back suggested in the LMA exposure drafts is a relevant central bank rate and in the event of unavailability of a central bank rate, the fall-back would be to lenders' actual cost of funds drafted in a similar form to existing LMA documents based on LIBOR.

- Measuring the cost of funds

  As already noted, the risk-free rates measure different economic concepts to LIBOR so that the risk-free rate over a period is likely to be lower than LIBOR over the same period, and may not reflect the lenders' cost of funds over that period. The LMA exposure drafts include in the interest rate calculation an optional addition of an Adjusted Reference Rate which could, by agreement between the parties, be set at a fixed-rate or variable rate according to different lengths of interest period, the intention being that the Adjusted Reference Rate would act as an approximation of the lenders' cost of funds in the same way that LIBOR does currently. It may still be relevant to include market disruption provisions to allocate to borrowers the risk of economic changes during the term of the loan resulting in the Adjusted Reference Rate agreed at the outset of the transaction no longer reflecting a lender's actual cost of funding.

- Break Costs

  In the context of a risk-free rate calculation of interest, it is arguable that break costs are irrelevant. Break costs in a floating rate transaction are currently based on the idea that the lender is match funding its loan (i.e. borrowing an amount equal to the loan in the interbank market for a period equal to the interest period). If the borrower repays mid interest period then the lender may suffer a loss if the cost to it of maintaining the loan for the remainder of the interest period is more than it would be able to obtain be redepositing the money for the period from receipt of the loan until the last day of the interest period. This scenario clearly does not apply where the loan is priced on the basis of a risk free rate. The interest accrues on a daily basis. There is no means to quantify what the interest would have been over the interest period at the point of prepayment because that interest rate could only be determined at the end of the Observation Period. For this reason the risk-free rate exposure drafts leave the break costs provisions as optional and do not include a definition, leaving it as a commercial point for the parties to agree in each case. The commentary notes that the break costs concept could be instead adapted to compensate lenders for unexpected administration costs associated with the payment made prior to the end of an interest period, or as an optional pricing supplement in return for which a borrower is given the flexibility to make repayments mid-way through interest periods.

Hedging

Given the potential for divergent approaches between the loan market and the derivatives market in transitioning away from LIBOR as further explored below, care will need to be taken in terms of structuring hedging arrangements for future transactions and also in coordinating the transition for hedging and loan documentation in existing transactions to avoid basis risk.

Capital Markets

Transitioning away from LIBOR in legacy transactions creates particular challenges for the bond market in that obtaining consent for changes to legacy transactions may be more difficult for bonds given the typically high threshold for obtaining bond holder consent.

Nonetheless new bonds have started to be issued which reference risk-free rates and calculation methods such as the use of compounded rates either in arrears or using the lag method have already been adopted.

Wider usage

Exposure to LIBOR and other IBORs extends beyond its usage as a benchmark in financial products. The use of these benchmarks can arise in a number of other commercial contract contexts too such as in default rates, in valuations and in pricing provisions. Often the use of LIBOR can be referenced in ancillary documentation without the inclusion of any methodology for determining the rate if it should cease to be published.

Documenting transition – different approaches in new transactions

Market fragmentation

One of the key considerations in managing LIBOR transition is market fragmentation and the divergent approaches between industry sectors and currency jurisdictions as to documenting triggers to a replacement of benchmark, fallback provisions, to the method used to calculate any replacement benchmark and to value adjustment. This needs to be managed with particular care where transactions are hedged given the possible emergence of basis risk.

Trigger events – what circumstances trigger a change in benchmark?

Several industry bodies such as the Loan Market Association (**LMA**) and ISDA have devised suggested language to facilitate a change in benchmark and to make consequent amendments upon the occurrence of a cessation of LIBOR.

In addition there has been an increasing recognition that it may be advisable to change a benchmark ahead of any formal discontinuation of LIBOR. This was emphasized by the FCA in a statement on LIBOR transition and contractual fallbacks in January 2019[33], in a speech by Andrew Bailey[34] later in 2019 and in statements up to the latter stages of 2020[35]. It is possible that LIBOR may continue for a period post 2021 (and in the case of USD LIBOR, will continue up to 30 June 2023), all be it in a less robust form, as the FCA have powers to allow the continued publishing of LIBOR for 'tough legacy contracts' under the 2019/2020 Financial Services Act introduced on 21 October 2020. This extension beyond 2021 will only apply to these 'tough' contracts that "genuinely have no realistic ability to be renegotiated or amended to transition."[36]

If LIBOR were to continue on the basis of the IBA's reduced submissions policy then this could lock the rate for LIBOR, effectively converting what was a floating rate transaction into a fixed rate transaction. Alternatively, the market may move towards an alternative basis for calculating interest prior to the discontinuation of LIBOR and banks may wish to adopt that. The LMA has proposed a definition of Screen Replacement Events, which includes circumstances (such as changes to the methodology for calculating LIBOR and the compilation of LIBOR in accordance with the reduced submissions policy) which would trigger the relevant fallback provisions described below before cessation of the benchmark.

[33] https://www.fca.org.uk/news/speeches/libor-transition-and-contractual-fallbacks
[34] https://www.fca.org.uk/news/speeches/andrew-bailey-speech-annual-public-meeting-2019
[35] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/statement-welcoming-isda-announcement.pdf?la=en&hash=1D9DDAB066CC9B7BD959CA0462106E3F07F9FDF9
[36]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/928238/LIBOR_Policy_Statement.pdf

ISDA completed a consultation on the adoption of pre-cessation triggers to fallbacks in 2019[37]. Results indicated that the majority of respondents would generally not want to continue referencing a covered IBOR in existing or new derivatives contracts following a statement from a supervisor that it is no longer representative of the underlying market. In February 2020, ISDA announced that it would re-consult on implementation of pre-cessation fallbacks. The new consultation asked whether the 2006 ISDA Definitions should be amended to include fallbacks that would apply to all covered derivatives following the permanent cessation of IBOR or a non-representative pre-cessation event, whichever occurs first. The results of the February 2020 consultation showed respondents to be in favour of including the non-representative pre-cessation event trigger in the supplement and protocol, and these results are mirrored in the inclusion of a non-representative pre-cessation trigger in ISDA's IBOR Fallbacks Supplement and Protocol published on 23 October 2020. The Supplement includes the pre-cessation trigger in all new transactions incorporating the ISDA definitions, whilst market participants will also be able to adhere to the Fallbacks Protocol in order to incorporate those definitions into legacy transactions.

Fallbacks – what happens when the trigger event occurs?

The consequences of the occurrence of a trigger event vary across the market sectors. For example, as per current LMA documentation a trigger event would lead to a reduced consent threshold to a change in benchmark and consequential amendments from a requirement for all lender consent to majority lender consent. The wording has recently been amended to include an agreed timetable to negotiate transition to a risk free rate. However the wording does not contain a prescribed fall-back to a risk-free rate in case of any inability to agree the relevant changes. As such, if the Screen Rate becomes unavailable and no agreement can be reached as to an alternative benchmark then depending on the provisions of the relevant loan agreement, the rate of interest may be determined by reference to an historic interest rate, reference banks (who are unlikely to quote) and ultimately lenders may be entitled to charge their actual cost of funds.

This contrasts with the proposal by ISDA following its consultation that the consequence of a trigger event occurring with respect to GBP LIBOR would be for LIBOR to be replaced by SONIA calculated by reference to a compounded setting in arrears rate with a consequent credit value adjustment being determined by reference to the historical mean/median approach[38].

ARRC updated their hardwired approach drafting for cash products which establishes a waterfall of proposed fallback options into documentation. The adoption of the hard wired approach waterfall would mean, for example, that if the trigger event occurred, the rate could first be determined by reference to Term SOFR and if not available then by reference to a daily simple SOFR rate or ultimately by reference to a rate selected by the administrative agent and borrower, bearing in mind any recommendations from relevant government bodies or market conventions. Considerable discretion given to the agent bank to agree the amendments required to facilitate the use of the benchmark within the relevant loan agreement . ARRC have implemented their proposed transition timetable that hardwired fallbacks should be included in all new business loan documentation from 30 September 2020[39].

In the London market some loan market transactions have been documented including "switch" provisions whereby upon the occurrence of certain trigger events, the transaction would transition to a risk free rate. The

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[37] https://www.isda.org/2019/10/21/isda-publishes-report-summarizing-results-of-benchmark-fallbacks-consultation-on-pre-cessation-issues/
[38] http://assets.isda.org/media/f253b540-193/42c13663-pdf/ and http://assets.isda.org/media/04d213b6/db0b0fd7-pdf/
[39] https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Language-June-30-2020.pdf

recent syndicated loan facility concluded by British American Tobacco (BAT) is an example of such a transaction. This included a mechanism whereby the transaction would transition to compounded SOFR/SONIA in arrears using a 5 business day look back period with observation shift upon the first anniversary of the signing date of the facility or, if LIBOR cessation has not occurred, then on a future date determined by BAT once the bank market is fully prepared for the transition to the risk free rates. It will be interesting to see if the inclusion of "switch" provisions becomes more prevalent in the London market given the stance that the ARRC is taking regarding the incorporation of hardwired fallbacks in loan documentation as outlined above.

Current use of risk-free rates

Of course one way of avoiding the need for the inclusion of trigger events and fallbacks in anticipation of the cessation of LIBOR is for market participants to document transactions using risk-free rates instead of LIBOR as the relevant benchmark. For new transactions, the market is moving towards using risk-free rates instead of LIBOR as the relevant benchmark. Risk-free rates have been used recently in the bond market and in bilateral sterling loan facilities.

In September 2019, the LMA published "exposure drafts" of compounded risk-free rate facilities agreements for SONIA and SOFR loans. The stated aim of these drafts is to facilitate awareness around the issues involved in structuring syndicated loans which reference compounded SOFR, SONIA or other near risk-free reference rates. Whilst they do notrepresent a standardised market position as yet, the LMA's commentary to their September 2020 exposure drafts indicate the intention that these drafts serve as a useful basis for market participants to move towards standardised documentation.

A number of bilateral loans referencing risk free rates have now been concluded. In the syndicated loan market, the British American Tobacco multi-currency syndicated loan transaction included a switch mechanism to transition to compounded SONIA and SOFR in arrears. A similar mechanism was included in the US Dollar syndicated loan facility for Royal Dutch Shell plc. The LMA has compiled a table of the relevant transactions which is available on their LIBOR microsite.

In September 2020, GlaxoSmithKline completed the refinancing of two syndicated revolving credit facilities – a USD $2.5 billion 364-day facility and a £1.9 billion multi-currency three year facility – replacing existing facilities to include fixed spread adjustment amounts for both SOFR and SONIA. The facilities involve 12 major banks all using identical documentation on a bilateral basis, with interest periods set at one month and a fixed spread adjustment reflecting the five-year historic median of spreads between the relevant LIBORs, SONIA and SOFR.

In addition, more consideration is being given to the use of risk-free rates in contracts where the use of LIBOR has purely been for reference only and is not linked to any underlying financing. For example, it is now becoming more common to use an alternative to LIBOR for calculating a default rate of interest in contracts which are not connected to a LIBOR based financing.

Documenting transition – legacy transactions

More difficult to manage are those legacy transactions which extend beyond 2021 and may not have contemplated a transition away from LIBOR at all. There is a particular concern that LIBOR cessation could give rise to the triggering of documentary fallback provisions which were only ever intended to deal with a short term unavailability of the screen rate.

Financial instruments

For example many existing securitisations have maturity dates that extend well beyond 2021. The terms of these notes typically fallback to the last available LIBOR rate thereby resulting in a fixed rate note following the withdrawal of LIBOR. From the issuer perspective, the conversion to a fixed rate may result in (i) mismatch between the rate payable on the underlying assets and the rate payable on the bonds and (ii) any existing fixed-floating or basis rate swaps no longer providing the hedging support envisaged at the outset of the transaction. As the asset backed securities are typically rated, these changes may also impact the rating of the notes.

From the investor perspective, in addition to the possible impact on the rating of the notes, the change from a floating to a fixed rate will clearly need to be taken into account when modelling the payment profile of the individual notes and/or portfolio.

Whether issuers and/or originators wish or choose to amend legacy transactions may ultimately depend upon prevailing market conditions at the time of withdrawal. If the fallback rate is attractive, there may be no economic need – and possibly a disincentive - to amend the terms of the notes. On the other hand if the fallback rate is unattractive, the originator/issuer will likely have a choice between undertaking a consent solicitation to amend the terms of the notes, exercising a call option to redeem the existing notes (if available) or allowing the transaction to go into default. Where an amendment to the determination of a rate payable on the notes is required, such amendment is likely to be a reserved matter or basic terms modification that will require majority noteholder consent with enhanced quorum requirements. In many cases, redemption (if available) may be preferable to attempting a consent solicitation that may be unsuccessful or has the potential to result in potential disputes over the allocation of any economic gains and losses resulting from any change to the benchmark rate.

Loans

In LMA based loan documentation, if the screen rate becomes unavailable then the change to the calculation of interest provisions and market disruption provisions could be invoked. Depending on the fallback options selected in the loan agreement this could involve the rate being determined by reference to an historic rate, to reference bank quoted rates (which would be very unlikely to quote) and ultimately, by reference to a lender's actual cost of funds (which can be very difficult for lenders to calculate).

In addition, where documentation does not anticipate a change in benchmark, it is likely to be a matter of negotiation between the parties to the documents as to the alternative benchmark, the financial consequences of the transition to that benchmark and consequent documentary amendments. The basic position with respect

to legacy LMA based loan documentation is that any consent which would involve a reduction in the rate of interest will require all lender consent as well as the consent of the borrower. In the bond market, obtaining bond holder consent to changes could be time consuming and difficult.

Particular care will need to be taken to coordinate transition away from LIBOR on a cross product basis to avoid basis risk.

In accordance with current guidance from the Bank of England, the FCA, ISDA, the Federal Reserve and the Financial Stability Board, financiers and corporates should have already undertaken extensive due diligence of their existing portfolios to determine their exposure to LIBOR-linked contracts extending beyond the end of December 2021, as well as be in a position to offer non-LIBOR linked loan products by the end of 2021.

Key regulatory issues and challenges concerning IBOR transition

Where IBOR transition is relevant or likely to affect a firm, the impact is expected to be wide-ranging and not restricted to a particular business line or system. As a paper published by the UK Prudential Regulatory Authority (**PRA**) highlights[40], exposure to LIBOR (or other IBORs) is often deeply embedded across a firm's assets and liability structures. Furthermore, it is equally embedded in tools and devices used to form prices and evaluate risk and performance, both in buy and sell side businesses.

Planning is critical

Given the potential extent of the impact within any one organisation and the complexity caused by evolving practice in the market, it is essential to start planning how to adapt. The regulators in the UK have already emphasised the importance of taking this seriously and have required certain firms to provide their plans. The FCA has published feedback on what they see as good practice, which might also inform the plans of firms in other countries.

Firms will want to start with a risk assessment of how and where IBORs interact with their business, taking into account the nature, scale and complexity of their business. This may require the use of quantitative and qualitative tools to measure and track exposure to IBORs. In their Global Transition Roadmap published on 16 October 2020, the Financial Stability Board indicated that firms should have already begun, if not completed this process.[41]

Once the key risks have been identified and understood, firms will need to develop mitigating actions. This might be challenging while possible options are still being developed but firms will be expected to plot their direction of travel, keep industry initiatives under review and continually re-assess and flex their plans as needed.

Depending on the scale and diversity of the business affected, firms may need to determine appropriate parameters by which they can logically prioritise their efforts. However, firms will need to think through the entire process, including the need to amend contracts and other product documentation such as KIDs and terms and conditions, update internal policies and procedures and train staff.

A project of this importance is likely to require the involvement of, and review and challenge by, a number of stakeholders with different perspectives and skills. It will also need an appropriate governance structure and leadership from senior management.

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[40] Titled “Firms preparations for transition from London Interbank Offered Rate (LIBOR) to risk-free rates (**RFRs**): Key themes, good practice and next steps 2019”.
[41] https://www.fsb.org/wp-content/uploads/P161020-1.pdf

In fact, the regulators in the UK (both the FCA and the PRA) will expect a dedicated Senior Manager to oversee the process, provide adequate supervision over all staff involved in the transition, and ultimately, demonstrate ownership of the transition plan.

Communication and conduct are key

As with other regulatory change that affects the entire market, it is important that organisations communicate with one another so that all parties realise the need for, and understand the implications of, such change so that they are able to adapt to it.

Since firms are unlikely to have all the answers at the outset, communication is likely to be ongoing and require updates at regular intervals. Initial communications with clients may take the form of education about the reason for the changes and the likely impact, especially where clients are not themselves regulated. Firms will need to flex the style and content of their communications according to their audience, recognising the different needs of financial institutions versus corporates versus retail clients and potential asymmetries of information.

Firms will also need to take account of applicable regulatory principles and requirements such as the FCA's concept of treating customers fairly. More fundamentally, in deciding how to adjust contracts, firms (at least those in the UK) will be expected to act with integrity and treat their clients fairly. These over-arching principles will be relevant to the economic consequences of any adjustments, as well as to the process of contract amendment. Firms should take account of client feedback as they go along and not forget the possibility of complaints or even enforcement action should they get this wrong.

Firms may also want, where they are not required, to communicate with their regulators at appropriate intervals to keep them appraised of plans, progress and challenges encountered along the way. The regulators are also encouraging firms to actively participate in industry groups that are trying to develop solutions to assist with transition.

The Benchmark Regulation

The framework surrounding IBOR transition is broadly governed by the Benchmark Regulation.

This requires any supervised entity that uses a benchmark to produce and maintain a 'robust written plan setting out the actions that they would take in the event that a benchmark materially changes or ceases to be provided.' For many firms, these plans will apply to several benchmarks but they may need to be updated for IBOR transition to ensure that they are consistent with the latest developments. Supervised entities should be aware that they are required to provide these plans to their national competent authority upon request.

In respect of critical benchmarks like LIBOR, the supervisor of the benchmark is required under the Benchmark Regulation to assess the capability of the benchmark to be representative of an underlying market. Each time a supervised contributor to a benchmark announces its intention to stop contributing data, the respective supervisor is required to assess the benchmark's ongoing capability to be representative. As the FCA's Director of Markets and Wholesale Policy, Edwin Schooling Latter, pointed out that the 'end game' for many an IBOR could “well include an assessment by a regulator that one or more of the panels [of contributors] has shrunk so significantly that it no longer considers the relevant benchmark to be capable of being representative”. Since that assessment, the FCA will expect to be granted the power under the 2019/2020 Financial Services Act to declare any benchmark rate unrepresentative and order for it to be wound down or change the methodology for its continued use in legacy transactions.

Firms that are still relying on references to a benchmark in their contracts after the benchmark has been declared as not capable of being representative, would be well advised to consider the negative ramifications of doing this.

Competition

Regulators have adopted the approach that any transition away from LIBOR should be developed by the market rather than by regulation. However in developing and implementing a market consensus to any such transition, financial institutions will need to take care to avoid infringing competition law.

The European Commission, alongside financial regulators, has conducted numerous investigations in relation to benchmark rates (including EURIBOR, Swiss LIBOR, Yen LIBOR and TIBOR) and imposed fines for a various types of behaviour it deemed to be collusive and contrary to competition rules. In particular, sanctions were imposed for coordinated manipulation of the benchmark rates but also for exchange of commercially sensitive information on the trading of derivative products based on these rates. Although the first investigations started nine years ago, many cases are still ongoing before the EU institutions or before national courts as a result of actions initiated by private claimants. Against this background, the European Commission, the UK Competition and Markets Authority, the UK Financial Conduct Authority and national competition agencies in other jurisdictions will continue to monitor closely any activity related to LIBOR transition.

Any collaboration between financial institutions can raise potentially serious competition law concerns. This follows from the fact that the competition agencies will regard them as competitors – actual or potential. This necessitates ensuring that appropriate safeguards must are in place both during market negotiations on LIBOR transition and also, once adopted, in respect of how its successor will be implemented in day-to-day business activities.

In terms of the initial phase during which the market will come together to agree on a successor for LIBOR, it is necessary to ensure that no competitively-sensitive information is shared between the participants at this occasion by adopting suitable protocols to avoid inappropriate information passing. The use of confidentiality agreements and NDAs will have to be considered as well the creation of compliance systems and records to demonstrate that appropriate steps take (e.g. using agendas and taking minutes of meetings). External counsel should be used to oversee the discussions and to maintain privilege at EU level, wherever possible.

The successor – to be designated by the market in due course – will also need to apply compliance measures to minimise the risk of collusion between participants in the project. Market participants' trading activity will remain under competition law scrutiny. Competition authorities are wary of any coordinated trading decision amongst competitors, in particular if they have the objective of influencing any benchmark rates or profiting from benchmark rates movements.

Consequently monitoring measures should be adopted in the subsequent phase of implementation for the successor to LIBOR to ensure that the new rate does not, in practice, have unintended competition law effects. This includes ensuring that the trading activity related to any successor does not raise competition law risks, for example by allowing the exchange of commercially sensitive information in a manner that the competition agencies might regard as facilitating price coordination.

Managing LIBOR transition – checklist

Managing LIBOR transition will therefore involve a cross jurisdictional analysis of the consequences for transactions which are likely to extend beyond 2021, how these can be amended to reflect any new benchmark and the financial, regulatory, contractual, tax and accounting implications of such transition.

For example, the following considerations may be relevant:

Due Diligence

- Identification of contracts using the relevant benchmark and categorising them including by market, currency, format and duration.
- Risk analysis of use of LIBOR in the business and exposure to the benchmark. This will go beyond a review of the use of the benchmark in relevant transactions as LIBOR may be used as a benchmark in different ways across the business e.g. in valuations.
- Identification of regulatory requirements and deadlines.
- What operational systems and procedures are likely to be affected? What actions are required to change those systems, who needs to approve those decisions and undertake the required procedures and within what timescale could this be done?
- What are current policies with respect to the use of LIBOR in documentation on new transactions?

Contractual Analysis

- What is the contractual procedure for transition to a new benchmark (if any)?
- Is there a discretion granted to either party to make changes and, if so, what limits are placed on that discretion?
- Are consents required to a change of benchmark and from who? Within what timescale could those consents be obtained?
- What other consequential amendments may be necessary and what requirements, such as consent, are placed on any such amendment?
- Does the existing contract establish any procedure for agreeing a spread value adjustment or any equivalent payment? If not, how will this be established?
- What is the position under hedging contracts or other ancillary contracts which may relate to the financing? What recourse would there be in the case of inconsistency between the fallback provisions in related contracts, such as a loan and the corresponding hedging agreement?
- Could proposed amendments impact any security granted in respect of the relevant transaction?

- Could the cessation of LIBOR trigger market disruption clauses or clauses which change the basis for the calculation of interest and how should these clauses be invoked?
- What mechanisms are set out in the contract to resolve disputes as to the appropriate benchmark (if any)?
- Would the cessation of LIBOR in the absence of any contractual fallback provision constitute an illegality event?
- Would the cessation of LIBOR in the absence of any contractual fallback provision frustrate a contract?
- What recourse would there be in circumstances where transition to a new benchmark has negative financial implications for parties to the relevant financing?

Tax and Accounting Analysis

- What are the accounting consequences of the proposed change? For example monitoring potential changes to accounting standards to facilitate the continuation of hedge accounting.
- What are the tax consequences of the proposed change? For example the impact on the administration of withholding tax and gross up provisions, any capital gains tax consequences of amending documentation and corporation tax implications of possible changes to accounting treatment.

Regulatory Analysis

- What regulatory duties, principles and deadlines apply to transition? This will involve continual monitoring of statements and communications from regulators.
- What reporting requirements are mandated by regulators and by when is a response required?
- Who is responsible for compliance?
- What are the requirements for informing and liaising with customers?

Competition Law Analysis

- Are there any competition law considerations to be aware of? What arrangements are in place to maintain confidentiality and avoid the sharing of competitively-sensitive information?

Bidding parties

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